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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,555	01/23/2004	Junichi Kiji	016907-1595	3198

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FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER
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RAYYAN, SUSAN F

ART UNIT	PAPER NUMBER
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2167

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/762,555

Applicant(s)

KIJ, JUNICHI

Examiner

Susan F. Rayyan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 December 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 12/26/2006.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

*Susan F. Rayyan*  
3/9/07

### DETAILED ACTION

1. Claims 1-22 are pending.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the claimed invention is directed to non-statutory subject matter.

Claims 1 -22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

**MPEP 2106 IV.B.2. (b)** A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at 296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application.

Claims 1-22 in view of the above cited MPEP sections, are not statutory because they merely recite a number of computing steps without producing any tangible result and/or being limited to a practical application.

Claims 1-22 teach "storing, in a first storage unit, a set of binomial relation data... and in a second storage unit, position data ... extracting first binomial relation data ... associating ... adding a relation type ... to an arc... searching the set of the binomial relation data ...". The claim does not provide a tangible result such as storing the data or displaying data to the user.

***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on December 26, 2006 was before Final Office Action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. Documents A1-A13, A16 were listed in the Information Disclosure Statement filed on January 23, 2004 and were considered in the First Office Action. Non-Patent Literature A14-A15 is not in the English language and does not include a concise explanation of the relevance, as it is presently understood by the individual. It has been placed in the application file, but the information referred to therein has not been considered.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by (Patent Abstracts of Japan, Publication Number 2000-066884, Application Number 10-234704) issued to Fukutani Shozo ("Shozo").

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As per independent claim 1 Shozo anticipates:

(a) storing, in a first storage unit, a set of binomial relation data including first term data, second term data, and relation types between the first term data and the second term data, and in a second storage unit, position data which are data on position where each value of the first term data and second term data exists in the set of binomial relation data storing in the first storage unit (paragraph 10, defined data equates to first and second term data ; paragraph 8, definition information equates to relation types and location data equates to position data); (b) extracting first binomial relation data including first term data to be a start point of flow data from the set of binomial relation data in the first storage unit (paragraph 10, plotting the flowchart); (c) associating the start point as a first parent node with second term data of the first binomial relation data as a first child node (paragraph 10, inherent in plotting the flowchart) ; (d) adding a relation type of the first binomial relation data to an arc of the first binomial relation data(paragraph 10, inherent in plotting the flowchart); (e) searching the set of the binomial relation data in the first storage unit for third binomial relation data including first term data identical to second term data of second binomial relation data by referring to the position data in the second storage unit(paragraph 10, inherent in plotting the flowchart); (f) associating the first term data of the third binomial relation data as a second parent node with second term data of the third binomial relation data as a second child node...(paragraph 10, plotting the flowchart).

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As per claim 2, same as claim arguments above and Shozo anticipates:

wherein the (h) repeating includes stopping the (e) searching based on the third binomial relation data when the third binomial relation data has no second term data or the third binomial relation data including the first term data identical to the second term data of the second binomial relation data has not been found (paragraph 12, plotting flow chart).

As per claim 3, same as claim arguments above and Shozo anticipates:

wherein the (b) extracting includes: generating a matrix comprising a plurality of matrix elements having first matrix elements having data "0" defined by first row elements corresponding to the first term data and first column elements corresponding to the second term data, and second matrix elements having other than data "0" defined by other than the first row elements and first column elements when each row is assigned to first term data and each column is assigned to second term data, selecting data corresponding to one or a plurality of second row elements having a column sum "0" as one or a plurality of start point candidates and selecting the start point from the start point candidates if the plurality of start point candidates exist, determining the start point candidate as the start point if one start point candidate exist, and determining the start point by a predetermined procedure if no start point candidate exists (paragraph 39, matrix arrangement file).

As per independent claim 4 Shozo anticipates:

(a) –(h) (see citations of claim 1);  
(i) generating a first data tree including a second root identical to the first start point candidate based on the first partial tree (paragraph 12, flow chart generation); (b') extracting fourth binomial relation data including first term data to be a second start point candidate of flow data from the set of binomial relation data in the first storage unit (paragraph 12, flow chart generation); (c') associating the second start point candidate as a third parent node with second term data of the fourth binomial relation data as a third child node ... and (k) associating the start point and the defeated start point candidate, adding a relation type of binomial relation data between the start point and the defeated start point candidate to an arc between the start point and the defeated start point candidate, and integrating the first and second data trees into a third data tree (paragraph 10-12, flow chart plotting).

As per claim 5, same as claim arguments above and Shozo anticipates:

(h) repeating includes searching the set of the binomial relation data in the first storage unit for third binomial relation data including first term data of the third binomial relation data identical to second term data of second binomial relation data by referring to the position data in the second storage unit and checking whether the third binomial relation data has been searched... (paragraph 10-13, flow chart plotting).

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As per claim 6, same as claim arguments above and Shozo anticipates;

wherein the first term data and the second term data of the binomial relation data stored in the first storage unit have a hierarchical structure, and the (h) repeating ... (paragraphs 8,10-15, defined data, location data, definition information ).

As per claim 7, same as claim arguments above and Shozo anticipates:

wherein the first term data and the second term data of the binomial relation data stored in the first storage unit have a hierarchical structure, and the (h) repeating includes ... (paragraphs 8,10-15, defined data, location data, definition information).

As per claim 8, same as claim arguments above and Shozo anticipates:

selecting one node from a plurality of nodes when the plurality of nodes having same data exists and redirecting the plurality of nodes other than the selected node to the selected node, and deleting the plurality of nodes other than the selected node (paragraph 11-13, flow chart correctable).

As per claim 9, same as claim arguments above and Shozo anticipates:

generating a flow chart whose root is the first parent node by connecting the first child node to the partial tree; and generating a work flow by selecting one node from a plurality of nodes of the flow chart when the plurality of nodes having same data exists, redirecting the plurality of nodes other than the selected node to the selected node, and deleting the plurality of nodes other than the selected node (paragraph 15, flow chart).



Claim 10-22 rejected based on the same rationale as claims 1-9.

### ***Response to Arguments***

5. Applicant's arguments filed 12/26/2006 have been fully considered but they are not persuasive.

6. Regarding the Information Disclosure Statement, the Examiner considered references 1A-A13, A16 in the Office Action dated August 23, 2006. References A14-A15 were not considered as a concise explanation of the relevance for the Japanese non-patent literature was not provided. (see page 3, First Office Action ) . The Applicant has indicated an explanation of the relevance of the documents was provided in the specification on pages 2-3. Although the Examiner has considered the documents in the context of the specification, in order to consider the documents when listed in the Information Disclosure Statement a concise explanation of the relevance of the documents must be provided with the Information Disclosure Statement.

Regarding Applicant's arguments concerning the rejection of claims 1-22 under 35 USC 101 for being directed to non-statutory subject matter, Examiner respectfully disagrees. Applicant argues the "repeating the (e) searching , (f) associating, and (g) adding to generate a (first) partial tree including ..." of independent claims 1,4, and

similar features in the other independent claims produce a tangible result. Although the limitation provides for the generation of the partial tree the data is not stored in a non-volatile storage medium. The results of the “repeating the (e) searching , (f) associating, and (g) adding to generate a (first) partial tree including ...” must be stored on a non-volatile storage media (computer readable storage media) to provide the real world result.

Applicant argues Shozo does not teach “**relation types between the first term data and the second term data and position data** ... on position where each value of the first term data and the second term data exist”. Applicant also states the Office Action equates the “defined relation” of Shozo to the claimed relation type and the “location data” of Shozo with the claimed position data.

Examiner has reviewed the citations and disagrees. Office Action equates “defined data” to the claimed first and second term data, “definition information” to the claimed relation types and “location data” to the claimed position data).

Shozo teaches a set of binomial relation data including first term data, second term data, and relation types between the first term data and the second term data, and in a second storage unit, position data which are data on position where each value of the first term data and second term data exists in the set of binomial relation data storing in the first storage unit (paragraph 10, defined data equates to first and second term data; paragraph 8, definition information equates to relation types and location data equates to position data). Shozo plots the flow chart using the defined data, definition information and location information.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the relational information not only identifies arc types, but also identifies how many types, but also identifies how many types exist between two nodes", "graphs are generated by searching links for each node on the basis of the binomial relation information. Even in the case of where to nodes are identical, an association is searches for each arc type", "The position data indicates position of each element of the device in which the set of binomial relation data is stored.") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### **Contact Information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Rayyan whose telephone number is (571) 272-1675. The examiner can normally be reached M-F: 8am - 4:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Susan Rayyan

March 8, 2007



  
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